



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2007-27009; Directorate Identifier 2007-NE-02-AD]

RIN 2120-AA64

Airworthiness Directives; Turbomeca S.A. Turboshift Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to supersede airworthiness directive (AD) 2007-19-09R1 that applies to Turbomeca S.A. Arriel 2B1 turboshaft engines that do not have modification TU157 incorporated. AD 2007-19-09R1 requires replacement of the hydromechanical metering unit (HMU) with a serviceable HMU. Since we issued AD 2007-19-09R1, we received reports of ruptures on HMU constant delta pressure valves that have less than 2,000 hours in service. This proposed AD would continue to require HMU replacement; reduce the compliance interval; and include the power turbine (C2) cycle consumption rate when determining compliance times. We are proposing this AD to prevent failure of the HMU, which could lead to damage to the engine, and damage to the aircraft.

DATES: We must receive comments on this proposed AD by **[INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this AD, contact Turbomeca, S.A., 40220 Tarnos, France; phone: 33 (0)5 59 74 40 00; telex: 570 042; fax: 33 (0)5 59 74 45 15. You may view this service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2007-27009; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the MCAI, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the **ADDRESSES** section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Frederick Zink, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7779; fax: 781-238-7199; email: frederick.zink@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the **ADDRESSES** section.

Include “Docket No. FAA-2007-27009; Directorate Identifier 2007-NE-02-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

On May 24, 2010, we issued AD 2007-19-09R1, Amendment 39-16322 (75 FR 30687, June 2, 2010). That AD applies to all Turbomeca S.A. 2B1 turboshaft engines that do not incorporate modification TU157. That AD requires replacement of the HMU with a serviceable HMU. AD 2007-19-09R1 resulted from reports of HMU valve rupture. We issued AD 2007-19-09R1 to prevent failure of the HMU, which could lead to damage to the engine and damage to the aircraft.

Actions Since Existing AD Was Issued

Since we issued AD 2007-19-09R1, Amendment 39-16322 (75 FR 30687, June 2, 2010), we received reports of ruptures on HMU constant delta pressure valves that have less than 2,000 hours in service. Also since we issued AD 2007-19-09R1, the European Aviation Safety Agency has issued AD 2013-0171, dated July 30, 2013, which reintroduces a requirement for periodic replacement of the HMU.

FAA’s Determination

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Proposed AD Requirements

This proposed AD would retain certain requirements of AD 2007-19-09R1, Amendment 39-16322 (75 FR 30687, June 2, 2010) but would reduce the compliance interval and include the C2 cycle consumption rate when determining compliance times.

Costs of Compliance

We estimate that this proposed AD affects 264 engines installed on aircraft of U.S. registry. We also estimate that it would take about 1 hour per engine to comply with this proposed AD. The average labor rate is \$85 per hour. Parts cost about \$5,000 per engine. Based on these figures, we estimate the cost of this proposed AD on U.S. operators to be \$1,342,440.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, Section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701, "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This proposed regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We have determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national

Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that the proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared a regulatory evaluation of the estimated costs to comply with this proposed AD and placed it in the AD docket.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by removing airworthiness directive (AD) 2007-19-09R1, Amendment 39-16322 (75 FR 30687, June 2, 2010), and adding the following new AD:

Turbomeca S.A.: Docket No. FAA-2007-27009; Directorate Identifier 2007-NE-02-AD.

(a) Comments Due Date

The FAA must receive comments on this AD action by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD supersedes AD 2007-19-09R1, Amendment 39-16322 (75 FR 30687, June 2, 2010).

(c) Applicability

This AD applies to Turbomeca S.A. Arriel 2B1 turboshaft engines that do not have modification TU157 incorporated.

(d) Unsafe Condition

This AD was prompted by reports of ruptures on hydromechanical metering unit (HMU) constant delta pressure valves that have less than 2,000 hours in service. We are issuing this AD to prevent failure of the HMU, which could lead to damage to the engine and damage to the aircraft.

(e) Compliance

Within the compliance times specified, replace the HMU with a part eligible for installation, unless already done.

(1) HMU Operating Hours and Power Turbine (C2) Cycles are Known

(i) If on the effective date of this AD, the HMU C2 cycles are less than 900, then replace the HMU before the HMU accumulates 1,000 C2 cycles or 1,500 HMU operating hours, whichever occurs first;

(ii) If on the effective date of this AD, the HMU C2 cycles are 900 or more, then replace the HMU within 100 HMU C2 cycles after the effective date of this AD;

(iii) Thereafter, replace the HMU at every 1,000 HMU C2 cycles or 1,500 HMU operating hours, whichever comes first.

(2) HMU Operating Hours are Known and C2 Cycles are not Known

(i) If on the effective date of this AD, the HMU operating hours are less than 1,100, then replace the HMU before accumulating 1,200 HMU operating hours;

(ii) If on the effective date of this AD, the HMU operating hours are 1,100 or more, then replace the HMU within 100 HMU operating hours after the effective date of this AD;

(iii) Thereafter, replace HMUs at every 1,200 HMU operating hours.

(f) Definition

For the purposes of this AD, “HMU operating hours” or “C2 cycles” are defined as operating hours or C2 cycles since new, since overhaul, or since application of Turbomeca S.A. Service Bulletin (SB) No. 292 73 2105, Version B, dated December 16, 2010, or earlier version, or of Turbomeca S.A. Mandatory SB (MSB) No. 292 73 2818, Version D, dated June 24, 2013, or earlier version, whichever occurs later.

(g) Optional Terminating Action

Incorporation of Turbomeca S.A. SB No. 292 73 2157, Version C, dated July 17, 2013, or earlier version, is terminating action to the replacement and repetitive inspection requirements of this AD.

(h) Credit for Previous Actions

If you performed the actions required by paragraphs (e)(1) or (e)(2) of this AD using an earlier version of Turbomeca S.A. MSB No. 292 73 2818, Version D, dated June 24, 2013, you met the requirements of this AD. However, you must still repetitively replace the HMU as required by paragraphs (e)(1)(iii) and (e)(2)(iii) of this AD.

(i) Alternative Methods of Compliance (AMOCs)

The Manager, Engine Certification Office, FAA, may approve AMOCs to this AD. Use the procedures found in 14 CFR 39.19 to make your request.

(j) Related Information

(1) For more information about this AD, contact Frederick Zink, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7779; fax: 781-238-7199; email: frederick.zink@faa.gov.

(2) Refer to MCAI European Aviation Safety Agency Airworthiness Directive 2013-0171, dated July 30, 2013. You may examine the AD on the Internet at <http://www.regulations.gov> by searching for and locating it in Docket No. FAA-2007-27009.

(3) Turbomeca S.A. MSB No. 292 73 2818, Version D, dated June 24, 2013 and Turbomeca S.A. SB No. 292 73 2157, Version C, dated July 17, 2013, and Turbomeca S.A. SB No. 292 73 2105, Version B, dated December 16, 2010, pertain to the subject of this AD and can be obtained from Turbomeca S.A. using the contact information in paragraph (j)(4) of this AD.

(4) For service information identified in this AD, contact Turbomeca, S.A., 40220 Tarnos, France; phone: 33 (0)5 59 74 40 00; telex: 570 042; fax: 33 (0)5 59 74 45 1.

(5) You may view this service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

Issued in Burlington, Massachusetts, on December 11, 2013.

Robert J. Ganley,
Acting Assistant Directorate Manager, Engine & Propeller Directorate,
Aircraft Certification Service.

[4910-13-P]

